



Hypertensive Heart Disease

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What Is Hypertensive Heart Disease?

Hypertensive heart disease refers to heart conditions caused by high blood pressure.

A number of different heart disorders are caused by the heart working under increased pressure. Hypertensive heart disease includes heart failure, thickening of the heart muscle, coronary artery disease, and other conditions.

Hypertensive heart disease can cause serious health problems and is the leading cause of death from high blood pressure.

Types of Hypertensive Heart Disease

In general, the heart problems associated with high blood pressure relate to the heart's arteries and muscles.

Narrowing of the Arteries

Coronary arteries transport blood to your heart muscle. When high blood pressure causes the blood vessels to become narrow, blood flow to the heart can slow or stop. This condition is known as coronary heart disease (CHD), also called coronary artery disease.

CHD makes it difficult for your heart to function and supply the rest of your organs with blood. It can put you at risk for heart attack from a blood clot that gets stuck in one of the narrowed arteries and cuts off blood flow to your heart.

Thickening and Enlargement of the Heart

High blood pressure makes it difficult for your heart to pump blood. Just like other muscles in your body, regular hard work causes your heart muscles to thicken and grow. This alters the way the heart functions. These changes usually happen in the main pumping chamber of the heart, the left ventricle. The condition is known as left ventricular hypertrophy (LVH).

CHD can cause LVH and vice versa: When you have CHD, your heart must work harder. If your heart is enlarged because of LVH, it can compress the coronary arteries.

Complications

Both CHD and LVH can lead to:

- heart failure: your heart is unable to pump enough blood to the rest of your body
- arrhythmia: your heart beats abnormally
- ischemic heart disease: your heart doesn't get enough oxygen

- heart attack: blood flow to the heart is interrupted
- sudden cardiac arrest: your heart suddenly stops working, you stop breathing, and you lose consciousness
- stroke and sudden death

Who Is at Risk for Hypertensive Heart Disease?

Heart disease is the leading cause of death for both men and women in the United States. Over 610,000 Americans die from heart disease every year.

The main risk factor for hypertensive heart disease is high blood pressure. Your risk increases if:

- you're overweight
- you don't exercise enough
- you smoke
- you eat high-fat and high-cholesterol foods

You're more prone to heart disease if it runs in your family. Men are more likely to get heart disease than women who have not gone through menopause. Men and postmenopausal women are equally at risk. Your risk for heart disease will increase as you age, regardless of your gender.

Identifying the Symptoms of Hypertensive Heart Disease

Symptoms vary depending on the severity of the condition and progression of the disease. You may experience no symptoms, or your symptoms may include:

- chest pain (angina)
- tightness or pressure in the chest
- shortness of breath
- fatigue
- pain in the neck, back, arms, or shoulders
- persistent cough
- loss of appetite
- foot or ankle swelling

You need emergency care if your heart is suddenly beating rapidly or irregularly. Seek emergency care immediately or call 911 if you faint or have severe pain in your chest.

Regular physical exams will indicate whether you suffer from high blood pressure. If you do have high blood pressure, take extra care to look out for symptoms of heart disease.

Testing and Diagnosis: When to See the Doctor

Your doctor will review your medical history, conduct a physical exam, and run lab tests to check your kidneys, sodium, potassium, and blood count.

One or more of the following tests may be used to help determine the cause of your symptoms:

- electrocardiogram: monitors and records your heart's electrical activity. Your doctor will attach patches to your chest, legs, and arms. The results will be visible on a screen, and your doctor will interpret them.
- echocardiogram: takes a detailed picture of your heart and using ultrasound
- coronary angiography: examines the flow of blood through your heart. A thin tube called a catheter is inserted through your groin or an artery in your arm and up into the heart.

- exercise stress test: looks at how exercise affects your heart. You may be asked to pedal an exercise bike or walk on a treadmill.
- nuclear stress test: examines the flow of blood into the heart. The test is usually conducted while you're resting and exercising.

Treating Hypertensive Heart Disease

Treatment for hypertensive heart disease depends on the seriousness of your illness, your age, and your medical history.

Medication

Medications help your heart in a variety of ways. The main goals are to prevent your blood from clotting, improve the flow of your blood, and lower your cholesterol.

Examples of common heart disease medications include:

- water pills to help lower blood pressure
- nitrates to treat chest pain
- statins to treat high cholesterol
- beta-blockers to lower blood pressure and reduce the amount of oxygen used by the heart
- aspirin to prevent blood clots

It's important to always take all medications exactly as prescribed.

Surgeries and Devices

In more extreme cases, you may need surgery to increase blood flow to your heart.

If you need help regulating your heart's rate or rhythm, your doctor may surgically implant a battery-operated device called a pacemaker in your chest or abdomen. A pacemaker produces electrical stimulation that causes cardiac muscle to contract. Implantation of a pacemaker is important and beneficial when cardiac muscle electrical activity is inappropriately slow or absent.

Cardioverter-defibrillators (ICDs) are implantable devices that can be used to treat serious, life-threatening cardiac arrhythmias.

Coronary artery bypass graft surgery (CABG) treats blocked coronary arteries. This is only done in severe CHD.

A heart transplant or other heart-assisting devices may be necessary if your condition is especially severe.

Long-Term Outlook

Recovering from hypertensive heart disease depends on the exact condition and its intensity. Lifestyle changes can help keep the condition from getting worse in some cases. In severe cases, medications and surgery may not be effective in controlling the disease.

Preventing Hypertensive Heart Disease

Monitoring and preventing your blood pressure from getting too high is one of the most important ways to prevent hypertensive heart disease.

Lowering your blood pressure and cholesterol by eating a healthy diet and monitoring stress levels are possibly the best ways to prevent heart problems.

Maintaining a healthy weight, getting adequate sleep, and exercising regularly are common lifestyle recommendations. Talk to your doctor about ways to improve your overall health.

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